

Notice of Allowability

Application No.

09/707,589

Examiner

Ashwin Mehta

Applicant(s)

PERRY, CHRISTOPHER

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the papers submitted 14 August 2003.
2. ☒ The allowed claim(s) is/are 1-5 and 50-69.
3. ☐ The drawings filed on _____ are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
- * Certified copies not received: _____.
5. ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
 - (a) ☐ The translation of the foreign language provisional application has been received.
6. ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

7. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
8. ☐ CORRECTED DRAWINGS must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No. _____.
 - (b) ☐ including changes required by the proposed drawing correction filed _____, which has been approved by the Examiner.
 - (c) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No. _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet.

9. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|---|
| 1 <input type="checkbox"/> Notice of References Cited (PTO-892) | 2 <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3 <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 4 <input checked="" type="checkbox"/> Interview Summary (PTO-413), Paper No. _____. |
| 5 <input type="checkbox"/> Information Disclosure Statements (PTO-1449), Paper No. _____. | 6 <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 7 <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit of Biological Material | 8 <input type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9 <input type="checkbox"/> Other _____. |

Status of the Application

1. On October 1, 2003, an Advisory Action was mailed to Applicant, in response to Applicant's submission of an Amendment After Final, submitted August 14, 2003. The Advisory Action indicated that Applicants' amendment was not considered because the claim amendments were in improper format. However, it has since been determined that Applicant did use the correct format. The Advisory Action is therefore **VACATED**, and an action on the Amendment After Final is set forth below.

Claim Objections and Rejections

2. The objection to claims 9-13 is withdrawn, in light of the claim amendments.
3. The rejections of claims 6 and 46 under 35 U.S.C. 112, 2nd paragraph, are withdrawn in light of its cancellation.
4. The rejection of claims 7, 8, 14, 15, 23, 24, 29-31, 35-39, 43, 44, and 46-49 under 35 U.S.C. 112, 1st paragraph, is withdrawn in light of the claim amendments or cancellations.
5. The rejection of claims 14, 40, and 41 under 35 U.S.C. 112, 1st paragraph, is withdrawn in light of their cancellations.

Examiner's Amendment

6. An extension of time under 37 CFR 1.136(a) is required in order to make an examiner's amendment which places this application in condition for allowance. During a telephone conversation conducted on October 16, 2003, Bruce Vrana requested an extension of time for 2 MONTH(S) and authorized the Director to charge Deposit Account No. 50-1744 the required fee of \$410 for this extension and authorized the following examiner's amendment. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The application has been amended as follows:

Claims 9-19 have been cancelled.

The following new claims have been inserted:

50. A tissue culture of regenerable cells produced from the plant of claim 2 or 5.

51. Protoplasts produced from the tissue culture of claim 50.

52. The tissue culture of claim 50, wherein the culture is a callus culture.

53. The tissue culture of claim 50, wherein cells of the tissue culture are from a tissue selected from the group consisting of embryo, meristem, pollen, leaf, anther, root, root tip, silk, flower, kernel, ear, cob, husk and stalk.

54. A maize plant regenerated from the tissue culture of claim 50, said plant having all the morphological and physiological characteristics of inbred line NP2052, representative seed of said line having been deposited under ATCC Accession No. PTA-2660.

55. A method of producing an F1 hybrid maize seed, comprising crossing the plant of claim 2 or 5 with a different maize plant and harvesting the resultant F1 hybrid maize seed.

56. A method of producing an herbicide resistant maize plant comprising transforming the maize plant of claim 2 or 5 with a transgene that confers herbicide resistance.

57. An herbicide resistant maize plant produced by the method of claim 56.

58. The maize plant of claim 57, wherein the transgene confers resistance to an herbicide selected from the group consisting of glyphosate, gluphosinate, sulfonylurea, imidazolinone, hydroxyphenylpyruvate dioxygenase inhibitor and protoporphyrinogen oxidase inhibitor.

59. A method of producing an insect resistant maize plant comprising transforming the maize plant of claim 2 or 5 with a transgene that confers insect resistance.

60. An insect resistant maize plant produced by the method of claim 59.
61. The maize plant of claim 60, wherein the transgene is a *Bacillus thuringiensis* Cry1Ab gene.
62. A method of producing a disease resistant maize plant comprising transforming the maize plant of claim 2 or 5 with a transgene that confers disease resistance.
63. A disease resistant maize plant produced by the method of claim 62.
64. A method of producing a virus resistant maize plant comprising transforming the maize plant of claim 2 or 5 with a transgene that confers disease resistance.
65. A virus resistant maize plant produced by the method of claim 62.
66. A method of introducing a desired trait into maize inbred line NP2052 comprising:
(a) crossing NP2052 plants grown from NP2052 seed, representative seed of which has been deposited under ATCC Accession No. PTA-2660, with plants of another maize line that comprise a desired trait to produce F1 progeny plants, wherein the desired trait is selected from the group consisting of herbicide resistance, insect resistance, disease resistance, and virus resistance;

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(b) selecting F1 progeny plants that have the desired trait to produce selected F1 progeny plants;

(c) crossing the selected progeny plants with the NP2052 plants to produce backcross progeny plants;

(d) selecting for backcross progeny plants that have the desired trait and physiological and morphological characteristics of maize inbred line NP2052 listed in Table 1 to produce selected backcross progeny plants; and

(e) repeating steps (c) and (d) three or more times in succession to produce selected fourth or higher backcross progeny plants that comprise the desired trait and all of the physiological and morphological characteristics of maize inbred line NP2052 listed in Table 1 when grown in the same environmental conditions.

67. A plant produced by the method of claim 66, wherein the plant has the desired trait and all of the physiological and morphological characteristics of maize inbred line NP2052 listed in Table 1 when grown in the same environmental conditions.

68. The plant of claim 67 wherein the desired trait is herbicide resistance and the resistance is conferred to an herbicide selected from the group consisting of: glyphosate, gluphosinate, sulfonylurea, imidazolinone, hydroxyphenylpyruvate dioxygenase inhibitor and protoporphyrinogen oxidase inhibitor.

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69. The plant of claim 68 wherein the desired trait is insect resistance and the insect resistance is conferred by a transgene encoding *Bacillus thuringiensis* Cry1 Ab.

7. Claims 1-5 and 50-69 are allowed.

Contact Information

Any inquiry concerning this or earlier communications from the examiner should be directed to Ashwin Mehta, whose telephone number is 703-306-4540. The examiner can normally be reached on Mondays-Thursdays and alternate Fridays from 8:00 A.M to 5:30 P.M. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amy Nelson, can be reached at 703-306-3218. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-3014 and 703-872-9306 for regular communications and 703-872-9307 for After Final communications. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0196.

October 17, 2003



Ashwin D. Mehta, Ph.D.
Primary Examiner
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